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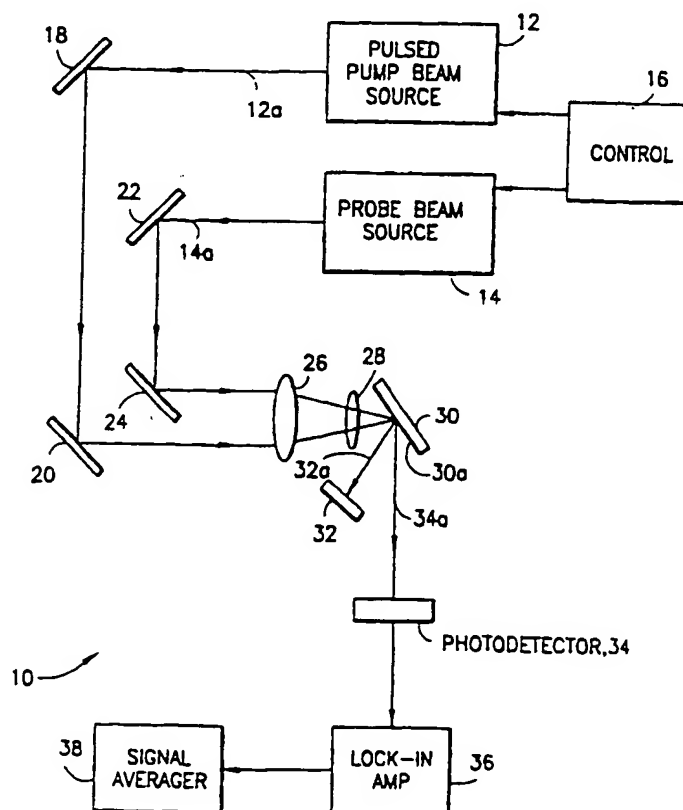
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With international search report.

(54) Title: ULTRAFAST OPTICAL TECHNIQUE FOR THE CHARACTERIZATION OF ALTERED MATERIALS

(57) Abstract

An ion implant characterization system (10) includes a pulsed pump beam source (12) and a probe beam source (14) which are all operated by a controller (16). A plurality of mirrors (18, 20), and (22, 24) may be employed for directing the pump and probe pulses (12a and 14a) respectively to a focusing optical element shown as a lens (26). Lens (26) provides a focussed pulsed beam (28) to a surface (30a) of an ion implanted sample (30) that is being characterized. A beamblocker (32) is employed to stop any reflected portion (32a) of the pump beam while a photodetector (34) is employed to receive the reflected portion of the pulsed probe beam, the portion of the probe beam that reflects from the surface (30a) of the sample (30).



INTERNATIONAL SEARCH REPORT

International application No.
PCT/US96/12331

A. CLASSIFICATION OF SUBJECT MATTER

IPC(6) : G01N 21/00

US CL : 356/432

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 356/432, 445

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|-----------|--|-----------------------|
| X | US, A, 4,710,030 [TAUC ET AL] 01 December 1987, col. 3-4 and figures 2-4. | 1 - 69 |
| A | US, A, 4,522,510 [ROSENCWAIG ET AL] 11 June 1985. | 1 - 69 |
| A | US, A, 4,579,463 [ROSENCWAIG ET AL] 01 April 1986. | 1 - 69 |

☐ Further documents are listed in the continuation of Box C. ☐ See patent family annex.

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Date of the actual completion of the international search

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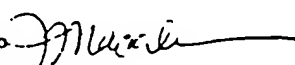
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